

## REMARKS

The Examiner states that if Applicants desire priority under 35 U.S.C. 119(e) based upon a previously filed copending application, specific reference to the earlier filed application must be made in the instant application. The present application states that this application is a divisional of the parent application, now abandoned.

Claim 20 has been amended to include the limitations of claim 22 which has been canceled. Thus, the 37 CFR 1.75 objection to the claims is overcome.

Claims 34-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Groger '185. Claim 34 has been amended to avoid this rejection by deleting diethylthiadicarbocyanine and hexamethylindotricarbocyanine iodide.

Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groger '137 in view of the McGill references (McGill '94 and McGill '96), Krech and Dutta, Law or Patonay. This rejection is respectfully traversed.

Groger '137 teaches a fluorescent sensor for chemical analysis including fluorophores associated with an optical waveguide. Part of the waveguide excites fluorescence of the fluorophore trapped within the porous waveguide or deposited on the waveguide as a coating. Groger '137 does not teach the specific polymers, nor the particular fluorophore/polymer combination of the claims.

McGill '94 generally discusses choosing polymer coatings for chemical sensors and guides the reader through the various physical and chemical process of selecting sorbent materials as transducer coatings for chemical sensors. However, there is no teaching of polymers for use with a waveguide as used in Groger '137.

McGill '96 discusses choosing polymer coatings for gas and liquid chemical microsensors.

Krech discusses optically sensing chlorinated hydrocarbons with polarity-sensitive dyes in polymeric matrixes.

Dutta teaches the spectroscopic properties of Nile Red (NR), a highly fluorescent laser dye, in organic solvents, binary solvent mixtures and polymers.

Law presents the effects of structural changes on the absorption and multiple fluorescence emission of bis[4-(dimethylamino)phenyl]squaraine and its derivatives.

Finally, Patonay discusses near-infrared probes for determination of solvent hydrophobicity.

According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polymers of McGill '94 or McGill '96 in the device of Groger '137 because of their known sorption properties for DMMP and the ability of those polymers to have an optical response to the sorption of an analyte as shown by Krech. The Examiner further contends it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate other dyes known to have polarity or hydrophobicity dependent responses such as taught by Dutta, Law or Patonay into the Groger '137 device.

Applicants submit there is nothing in the McGill and/or Krech references which would motivate the ordinary artisan to make the substitution as contended by the Examiner. Nor would such a substitution lead directly or indirectly to the claimed invention, i.e., a probe having a particular fluorophore in a particular polymer. This is especially true in view of the admitted fact the McGill references deal principally with SAW sensors and the Krech reference principally deals with solvatochromic dyes.

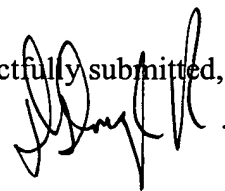
Publications listed in the Information Disclosure Statement filed February 12, 2002 have been lined out by the Examiner since it did not have a legible copy of each publication listed. Thus, submitted herewith are an Information Disclosure Statement (Form 1449) re-listing the publications lined through by the Examiner and a legible copy of each publication listed.

A Petition For Extension Of Time is being filed concurrently herewith.

In view of the foregoing, early and favorable action is respectfully requested.

The Commissioner is hereby authorized to charge/credit any fee, deficiencies, and/or overpayments to Deposit Account No. 19-4293.

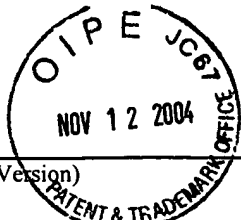
Respectfully submitted,



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FORM 1449 (S&J Version)	Docket No.: 12492.0004-D1
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>	Applicant: GROGER et al.
	Application No.: 10/073,041
	Filing Date February 12, 2002
	Examiner: Soderquist      Group Art Unit: 1743

U.S. PATENT DOCUMENTS						
Examiner's Initials*	Document No.	Date MM/YYYY	Inventor	Class	Subclass	Filing Date If Appropriate

Examiner's Initials*	Document No.	Date MM/YYYY	Inventor	Class	Subclass	Filing Date If Appropriate

OTHER DOCUMENTS	
Examiner's Initials*	Include author, title of article, title of item (book, journal, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Weiss et al., "Thin Film Monitoring Using Surface Plasmon Resonance Waveguide Sensors," pp. 1-20, Photonics Research Laboratory, University of Florida, Gainesville, FL
	Kelsch, James A., "Computer Block Diagram," Computer BMP, Arcova, Gainesville, FL
*	Groger et al., "Thin Film Sensors to Evaluate Chemical and Biological Threats to Army Structures", February 1992, pp. 1-41, American Research Corporation of Virginia, Radford, VA.
	Churchill et al., "Self-assembled Thin Film Sensors for Aquaculture Process Control", SBIR Phase I Final Report, Dec. 30, 1992, pp. 1-55, American Research Corporation of Virginia, Radford, VA.
	Haruvy et al., "Sol-Gel Preparation of Optically Clear Supported Thin-Film Glasses Embodying Laser Dyes", 1992, Chapter 28, pp. 405-424, Supramolecular Architecture, USA.
	Levy, David, "Sol-gel glasses for optics and electro-optics", Journal of Non-Crystalline Solids, Section 10, 147-148 (1992) pp. 508-517, North Holland.
	Reisfeld et al., "Optical Properties of Colorouts or Luminescent Species in Sol-Gel Glasses", Structure and Bonding 77, Springer-Verlag, 1992, pp. 239-247, Berlin, Heidelberg.
	Zusman et al., "Doped Sol-Gel Glasses as Chemical Sensors", Journal of Non-Crystalline Solids, Vol. 122, 1990, pp. 107-109, North Holland.
	Jahns et al., "Integrated planar optical imaging system with high interconnection density", Optical Letters, Vol. 18, No. 19, Oct. 1, 1993, pp. 1594-1596.
	Tanguay, Armand R., Jr., "Integrated Optical Information Processing" Research Report 1988, USC Optical Materials and Devices Laboratory, pp. 62-71, Los Angeles, CA.
	Feddersen et al., "Digital parallel acquisition in frequency domain fluorimetry", Rev. Sci. Instrum., Vol. 60, No. 9, September 1989, pp. 2929-2936.
	Haruvy et al., "Supported sol-gel thin-film glasses embodying laser dyes II: Three-layered waveguide assemblies", SPIE, Vol. 1590, Submolecular Glass Chemistry and Physics, 1991, pp. 59-70.
	Chen et al., "1-to-12 surface normal three-dimensional optical interconnects", Applied Physics Letters, Vol. 63, No. 14, October 1993, pp. 17-19.

\* Copy not presently available.

Examiner's Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.